

Xinger®

Directional Couplers 10 dB



Description

The 1W1304-10 is a low profile 10dB directional coupler in an easy to use surface mount package covering the AMPS and GSM bands. The 1W1304-10 is ideal for power and frequency detection as well as power injection and can be used in most high power designs. The 1W1304-10 has modified RF pads which can handle higher peak power levels than the standard Xinger designs. Also, the new RF pad improves manufacturing reliability and minimizes the risk of failures due to misalignment from pick and place equipment. Parts have been subjected to rigorous qualification testing and units are 100% tested. They are manufactured using materials with x and y thermal expansion coefficients compatible with common substrates such as FR4, G-10 and polyamide.

Features:

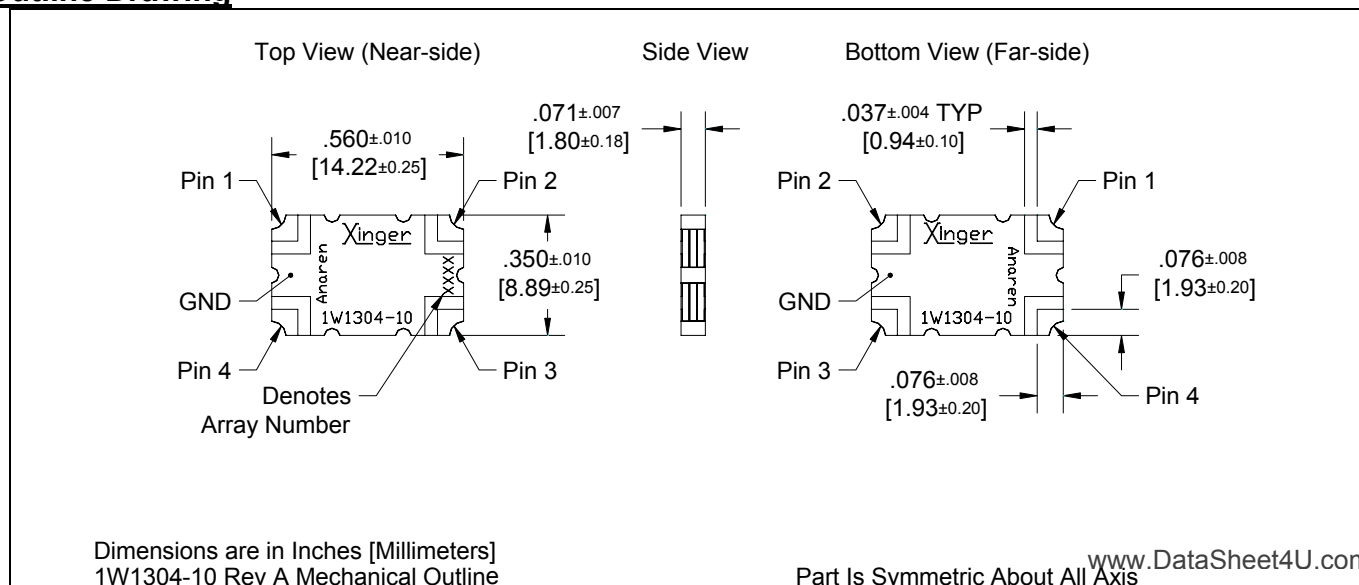
- 800 – 1000 MHz
- Low loss
- High Directivity
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100% Tested

ELECTRICAL SPECIFICATIONS**

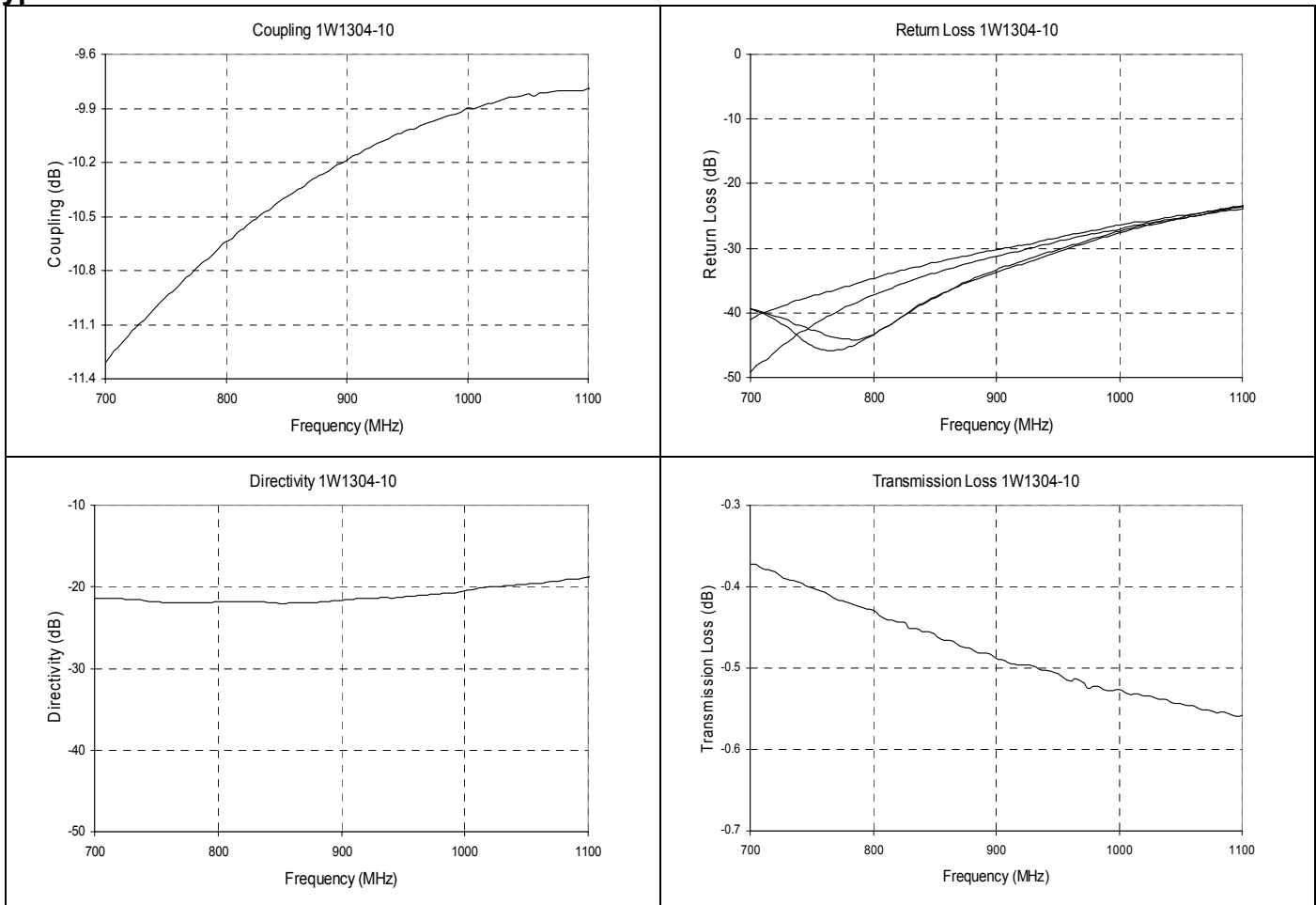
| Frequency | Mean Coupling | Insertion Loss | VSWR | Freq. Sensitivity |
|-------------|----------------|----------------|-----------------|-------------------|
| MHz | dB | dB Max | Max:1 | dB Max |
| 869 – 894 | 10.0 ± 0.5 | 0.25 | 1.17 | ±0.15 |
| 925 – 960 | 10.0 ± 0.5 | 0.25 | 1.17 | ±0.10 |
| 800 – 1000 | 10.0 ± 1.0 | 0.25 | 1.17 | ±0.40 |
| Directivity | Power Handling | ⊙JC | Operating Temp. | |
| dB Min | Watts | °C / Watt | °C | |
| 18 | 150 | 10.6 | -55 to +85 | |
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**Specification based on performance of unit properly installed on microstrip printed circuit boards with 50 Ω nominal impedance. Specifications subject to change without notice.

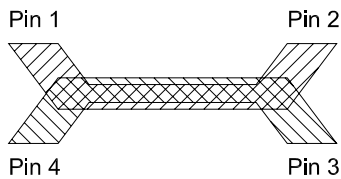
Outline Drawing



Typical Performance: 700 MHz. to 1100 MHz.



Pin Configuration

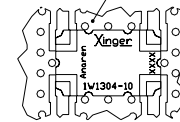


Directional Coupler Pin Configuration

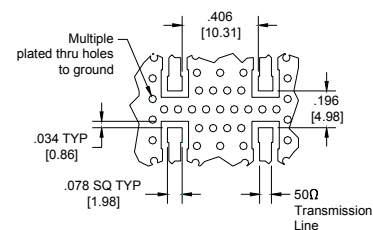
| | Pin 1 | Pin 2 | Pin 3 | Pin 4 |
|------------------|----------|----------|----------|----------|
| Configuration #1 | Input | Output | Isolated | Coupled |
| Configuration #2 | Output | Input | Coupled | Isolated |
| Configuration #3 | Isolated | Coupled | Input | Output |
| Configuration #4 | Coupled | Isolated | Output | Input |

Mounting Footprint

To ensure proper electrical and thermal performance there must be a ground plane with 100% solder connection underneath the part



Part Is Symmetric About All Axis



Dimensions are in Inches [Millimeters]
1W1304-10 Rev A Mounting Footprint

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Available on Tape and Reel For Pick and Place Manufacturing.

